

Purchasing Division / Finance Department  
Vince M. Mejer, Purchasing Agent  
440 South 8th Street  
Suite 200, Southwest Wing  
Lincoln, Nebraska 68508

402-441-7410  
fax: 402-441-6513



MAYOR CHRIS BEUTLER

lincoln.ne.gov

May 14, 2008

Logan Contractors Supply, Inc.  
6544 L Street  
Omaha, NE 68117-1112

Dear Vendor:

RE: ANNUAL REQUIREMENTS TO SUPPLY AND DELIVER POLYMER PAVEMENT REPAIR MASTIC, STATE CONTRACT 11741 OC

In accordance with the terms and conditions of the above referenced *State of Nebraska's Contract 11578*, the City of Lincoln desires to piggyback off Logan Contractors Supply, Inc., for the period of September 19, 2007 thru September 18, 2008, with the option to renew for one (1) additional one (1) year period when mutually agreeable to the vendor and the State of Nebraska.

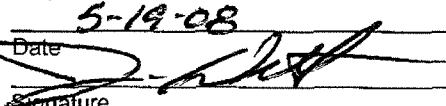
It is understood that all terms of payment and other conditions of the original contract will remain unchanged during the term.


As evidence of your company's desire to participate with the above referenced contract under its original terms and conditions, please countersign below. **Please return the original letter back to our office (faxed copy is not acceptable) as soon as possible**, for processing by the City of Lincoln. After the renew has been signed and an Executive Order issued you shall receive an Award Notification and your copy of the contract by mail.

If you have any questions regarding this agreement, please call me at 441-7414. Thank you for your assistance. We look forward to doing business with you in the next year.

  
Tom Kopplin  
Assistant Purchasing Agent

Official City Use Only

LOGAN CONTRACTORS SUPPLY INC  
Company Name  
6544 L STREET OMAHA NE 68117  
Company Address  
402-389-3900  
Phone No.  
402-597-0694  
FAX No.  
Jim Weir LOGAN CONTRACTORS.COM  
E-Mail Address  
Jim Weir  
By(print)  
SALES MANAGER  
Title  
5-19-08  
Date  
  
Signature

Dated this 9 day  
of June 2008  
  
Chris Beutler, Mayor

# STATE OF NEBRASKA CONTRACT AWARD

PAGE 1 OF 3	ORDER DATE 07/03/07
BUSINESS UNIT 9001	BUYER TODD DLOUHY
VENDOR NUMBER: 501812	
VENDOR ADDRESS: LOGAN CONTRACTORS SUPPLY, INC 6544 L ST OMAHA NE 68117-1112	

State Purchasing Bureau  
301 Centennial Mail South, 1st Floor  
Lincoln, Nebraska 68508

OR

P.O. Box 94847  
Lincoln, Nebraska 68509-4847  
Telephone: (402) 471-2401  
Fax: (402) 471-2089

**CONTRACT NUMBER**  
11741 OC

AN AWARD HAS BEEN MADE TO THE VENDOR NAMED ABOVE FOR THE FURNISHING OF EQUIPMENT, MATERIAL, OR SUPPLIES AS LISTED BELOW FOR THE PERIOD:

**SEPTEMBER 19, 2007 THROUGH SEPTEMBER 18, 2008**

NO ACTION ON THE PART OF THE VENDOR NEEDS TO BE TAKEN AT THIS TIME. ORDERS FOR THE EQUIPMENT OR SUPPLIES WILL BE MADE AS NEEDED BY THE VARIOUS AGENCIES OF THE STATE.

THIS CONTRACT IS NOT AN EXCLUSIVE CONTRACT TO FURNISH THE EQUIPMENT OR SUPPLIES SHOWN BELOW, AND DOES NOT PRECLUDE THE PURCHASE OF SIMILAR ITEMS FROM OTHER SOURCES.

THE STATE RESERVES THE RIGHT TO EXTEND THE PERIOD OF THIS CONTRACT BEYOND THE TERMINATION DATE WHEN MUTUALLY AGREEABLE TO THE VENDOR AND THE STATE OF NEBRASKA.

Original/Bid Document 11741 OC

Contract to Supply and deliver Polymer Pavement Repair Mastic as per the attached Special Terms and Conditions beginning September 19, 2007 through September 18, 2008. The contract may be renewed for one (1) additional one (1) year period when mutually agreeable to the vendor and the State of Nebraska. The State reserves the right to extend the period of this contract beyond the termination date when mutually agreeable to the vendor and the State of Nebraska.

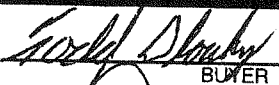

Contract supplier or suppliers may honor pricing and extend the contract to political sub-divisions, cities, and counties. Terms and conditions of the contract must be met by political sub-divisions, cities, and counties.

Contract subject to thirty (30) days cancellation by either party upon written notice.

Quantities shown are estimates only and are not to be construed to mean firm quantities. The State of Nebraska reserves the right to increase or decrease any quantities shown.

CONTACT: Jim Witt  
PHONE: 402-339-3900  
FAX: 402-597-0694

Line	Description	Est. Qty	Unit of Measure	Unit Price
1	D-6 Big Springs Polymer Pavement Repair Mastic	1100	BX	16.0400
2	D-6 Broken Bow	1100	BX	16.0400

  
BUYER  
  
MATERIAL ADMINISTRATOR

# STATE OF NEBRASKA CONTRACT AWARD

State Purchasing Bureau  
301 Centennial Mail South, 1st Floor  
Lincoln, Nebraska 68508

OR

P.O. Box 94847  
Lincoln, Nebraska 68509-4847  
Telephone: (402) 471-2401  
Fax: (402) 471-2089

**CONTRACT NUMBER**  
**11741 OC**

PAGE 2 OF 3	ORDER DATE 07/03/07
BUSINESS UNIT 9001	BUYER TODD DLOUHY
VENDOR NUMBER: 501812	

Line	Description	Est. Qty	Unit of Measure	Unit Price
	Polymer Pavement Repair Mastic			
3	D-6 Gothenburg	1100	BX	16.0400
	Polymer Pavement Repair Mastic			
4	D-6 Mullen	2200	BX	16.0400
	Polymer Pavement Repair Mastic			
5	D-6 North Platte	1100	BX	16.0400
	Polymer Pavement Repair Mastic			
6	D-6 Ogallala	1100	BX	16.0400
	Polymer Pavement Repair Mastic			
7	D-6 Stapleton	2200	BX	16.0400
	Polymer Pavement Repair Mastic			
8	D-7 Holdrege	1100	BX	16.0400
	Polymer Pavement Repair Mastic			
9	D-7 Imperial	1100	BX	16.0400
	Polymer Pavement Repair Mastic			
10	D-7 McCook	1100	BX	16.0400
	Polymer Pavement Repair Mastic			

  
BUYER INITIALS

## STANDARD CONDITIONS AND TERMS OF BID SOLICITATION AND OFFER Invitations to Bid and Contract Awards

It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the opening date. Website address: <http://www.das.state.ne.us/materiel/purchasing/purchasing.htm>

**SCOPE-** These standard conditions and terms of bid solicitation and acceptance apply in like force to this inquiry and to any subsequent contract resulting therefrom.

**PRICES-** Prices quoted shall be net, including transportation and delivery charges fully prepaid by the bidder, F.O.B. destination named in the Invitation to Bid. No additional charges will be allowed for packing, packages or partial delivery costs. When an arithmetic error has been made in the extended total, the unit price will govern.

**EXECUTION-** Bids must be signed in ink by the bidder on the State of Nebraska's Invitation to Bid form. All bids must be typewritten or in ink on the State of Nebraska's Invitation to Bid form. Erasures and alterations must be initialed by the bidder in ink. No telephone or voice bids will be accepted. Failure to comply with these provisions may result in the rejection of the bid.

**FACSIMILE DOCUMENTS-** The State Purchasing Bureau will only accept facsimile responses to Invitations to Bid on bids under \$25,000 and up to ten (10) pages. However, two party sealed bids containing facsimile pages are acceptable. No direct facsimile solicitation responses will be accepted for a commodity contract.

**VALID BID TIME-** Bids shall be firm for a minimum of sixty (60) calendar days after the opening date, unless otherwise stipulated by either party in the Invitation to Bid.

**DISCOUNTS-** Prices quoted shall be inclusive of ALL trade discounts. Cash discount terms of less than thirty (30) days will not be considered as part of the bid. Cash discount periods will be computed from the date of receipt of a properly executed claim voucher or the date of completion of delivery of all items in a satisfactory condition, whichever is later.

**PAYMENT-** Payment will be made by the responsible agency in conjunction with the State of Nebraska Prompt Payment Act 81-2401 through 2408. The State may request that payment be made electronically instead of by state warrant.

**COLLUSIVE BIDDING-** The bidder guarantees that the prices quoted have been arrived at without collusion with other eligible bidders and without effort to preclude the State of Nebraska from obtaining the lowest possible competitive price.

**LUMP SUM OR ALL OR NONE BIDS-** The State reserves the right to purchase item-by-item, by groups or as a total when the State may benefit by so doing. Bidders may submit a bid on an "all or none" or "lump sum" basis but should also submit a bid on an item-by-item basis. The term "all or none" means a conditional bid which requires the purchase of all items on which bids are offered and bidder declines to accept award on individual items; a "lump sum" bid is one in which the bidder offers a lower price than the sum of the individual bids if all items are purchased but agrees to deliver individual items at the prices quoted.

**SPECIFICATIONS-** Any manufacturer's names, trade names, brand names, information and/or catalog numbers listed in a specification are for reference and not intended to limit competition, but will be used as the standard by which equivalent material offered will be judged. The State Purchasing Director will be the sole judge of equivalency. The bidder may offer any brand which meets or exceeds the specification. When a specific product is required, the Invitation to Bid will so state. Any item bid is to be the latest current model under standard production at the time of order. No used or refurbished equipment will be accepted, unless otherwise stated.

**ALTERNATE/EQUIVALENT BIDS-** Bidder may offer bids which are at variance from the express specifications of the Invitation to Bid. The State reserves the right to consider and accept such bids if, in the judgement of the State Purchasing Director, the bid will result in goods and/or services equivalent to or better than those which would be supplied in the original bid specifications. Bidders must indicate on the Invitation to Bid the manufacturer's name, number and shall submit with their bid, sketches, descriptive literature and/or complete specifications. Reference to literature submitted with a previous bid will not satisfy this provision. Bids which do not comply with these requirements are subject to rejection. In the absence of any stated deviation or exception, the bid will be accepted as in strict compliance with all terms, conditions and specifications, and the bidder shall be held liable therefore.

**SAMPLES-** When requested, samples shall be furnished at the bidders expense prior to the opening of the bid, unless otherwise specified. Each sample must be labeled clearly and identify the bidders name, the Invitation to Bid number and the item number. Samples submitted must be representative of the commodities or equipment which would be delivered if awarded the bid. The State of Nebraska reserves the right to request samples even though this may not have been set forth in the invitation to Bid. Samples not destroyed in testing will be returned at bidders expense, if requested, or will be donated to a public institution.

**RECYCLING-** Preference will be given to items which are manufactured or produced from recycled material or which can be readily reused or recycled after their normal use as per State Statute Section 81-15,159.

**LATE BIDS-** All bids will be time and date stamped upon receipt by the State Purchasing Bureau, and this shall be the official time and date of receipt. Bids received after the time of the bid opening will be considered late bids and will be returned to the bidder unopened. The State Purchasing Bureau is not responsible for late bids or lost requests due to mail service inadequacies, traffic or other similar reasons.

**BID OPENING-** Openings shall be public on the date and time specified on the Invitation to Bid form. It is the bidder's responsibility to assure the bid is delivered at the designated date, time and place of the bid opening. Telephone bids are not acceptable. A bid may not be altered after opening of the bids.

**NO BID-** If not submitting a bid, respond by returning the Invitation to Bid form explaining the reason in the space provided. Failure to respond to an Invitation to Bid may be cause for the removal of the bidder's name from the mailing list. NOTE: To qualify as a respondent, bidder must submit a "NO BID" and it must be received no later than the stated bid opening date and time.

**AWARD-** All purchases, leases, or contracts which are based on competitive bids will be awarded to the lowest responsible bidder, determined according to the provisions of State Statute Section 81-161, R.R.S. 1943. The State reserves the right to reject any or all bids, wholly or in part and to waive any deviations or errors that are not material, do not invalidate the legitimacy of the bid and do not improve the bidders competitive position. All awards will be made in a manner deemed in the best interest of the State.

**BID TABULATIONS-** Tabulations will be furnished upon written request. A self-addressed, stamped envelope which must include the agency and solicitation number must be enclosed. Bid tabulations will not be provided by telephone or facsimile. Bid files may be examined during normal working hours by appointment. Bid tabulations are available on the website at: <http://www.das.state.ne.us/materiel/purchasing/bidtabs.htm>

**PERFORMANCE AND DEFAULT-** The State reserves the right to require a performance bond from the successful bidder, as provided by law, without expense to the State. Otherwise, in case of default of the contractor, the State may procure the articles from other sources and hold the contractor responsible for any excess cost occasioned thereby.

**IN-STATE PREFERENCE-** A resident bidder shall be allowed a preference against a nonresident from a state which gives or requires a preference to bidders from that state. The preference shall be equal to the preference given or required by the state of the nonresident bidders. Where the lowest responsible bid from a resident bidder is equal in all respects to one from a nonresident bidder from a state which has no preference law, the resident bidder shall be awarded the contract.

**NONDISCRIMINATION-** The Nebraska Fair Employment Practice Act prohibits contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for employment, to be employed in the performance of such contracts, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin. (State Statute Sections 48-1101 through 48-1125) The bidder guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this Invitation to Bid.

**TAXES-** Purchases made by the State of Nebraska are exempt from the payment of Federal Excise Taxes, and exemption certificates will be furnished on request. State and local taxes are exempt by State Statute Section 77-2704 (l) (m) R.R.S. 1943 and must not be included in the bid prices. Exemption by statute precludes the furnishing of State exemption certificates.

**DRUG POLICY -** Bidder certifies that it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

**GRIEVANCE AND PROTEST-** Grievance and protest procedure is available by contacting the buyer. Protest must be filed within ten (10) days of award.

**NE ACCESS TECHNOLOGY STANDARDS-** Vendor agrees to ensure compliance with Nebraska Access Technology Standards. See website at: <http://www.nitc.state.ne.us/standards/accessibility/>

**STATE OF NEBRASKA  
DEPARTMENT OF ROADS**

**Specification for POLYMER MODIFIED ASPHALT  
PAVEMENT REPAIR MASTIC**

**SCOPE**

Polymer Modified Asphalt Pavement Repair Mastic that will comply with the State of Nebraska, Department of Roads, Specifications for Polymer Modified Asphalt Pavement Repair Mastic dated August 2006.

**RIGHTS**

The State of Nebraska reserves the right to waive technicalities and to reject any or all bids.

**NON-COMPLIANCE STATEMENT**

Read this specification carefully. Any and all exceptions to this specification must be written on or attached to quotation request. Non-compliance can void your quotation.

**TERM OF CONTRACT**

Contract to supply and deliver Polymer Modified Asphalt Pavement Repair Mastic to various locations upon request, per the attached specifications, terms, and conditions for a one (1) year period beginning from award of contract with the option to renew for one (1) additional one (1) year periods when mutually agreeable with the vendor and the State of Nebraska. The State reserves the right to extend the period of this contract beyond the termination date when mutually agreeable to the vendor and the State of Nebraska.

**CANCELLATION**

This contract subject to 30 days cancellation by either party upon written notice.

The vendor, in accepting an award, agrees to furnish the State Purchasing Bureau 60 days prior to the expiration of this contract, the volume purchased by the State for each item awarded.

**ANNUAL USAGE**

The State of Nebraska reserves the right to increase or decrease any quantities shown. The orders shall be for the actual quantities of each item ordered by or for any agency during the life of the contract. Vendor shall not impose minimum order requirements.

## **PRICE**

All prices offered herein shall be firm against any increase for 90 days from the effective date of the proposed contract. After this period, a request for price increase shall be received in writing to the State Purchasing Bureau at least thirty (30) days prior to the effective date. The State reserves the right to accept or reject any price increase. Any price changes, downward or upward that may occur during the contract period shall be based on general industry changes as evidenced by revised printed price lists or notices, either by reason of market change or on the part of the contractor or other customers. Further documentation may be required by the State, to authenticate the increase (such as manufacturer invoices). Failure to supply any requested supporting documentation may be grounds to cancel the contract. The State of Nebraska shall receive full proportionate benefits of price decrease immediately upon their effective date.

## **DELIVERY INSTRUCTIONS**

Delivery: 30 days after receipt of purchase order.

Orders will be placed for truckload quantities of approximately 1100 boxes per load. Product shall be packaged in cardboard boxes of approximately 40 lbs per box. Deliveries will be made F.O.B. destination at the location given when ordered.

All loads must be palletized on 4 way expendable pallets, not to exceed 42" in width.

## **PRODUCT DESCRIPTION**

This specification describes a product that is a hot applied, single component, pourable aggregate filled, pre-packaged, ready to melt overband mastic repair material for concrete and asphalt pavements. This product is used for extra wide pavement cracks, joint separations, bridge approaches and other pavement distresses when installation is not recessed into existing pavement.

## **INVOICES**

An itemized invoice including the ordering agency name and individual, purchase order number, product description, unit cost, extension and total charges will be mailed to the bill to address on the purchase order. Discrepancies on invoices will be corrected to the State's satisfaction within fifteen (15) days

**State of Nebraska**  
**Department of Roads**  
**Specifications for Polymer Modified Asphalt Pavement Repair Mastic**

**YES    NO    OTHER**

- |                                     |                          |                          |  |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. <b>General:</b>   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. The Repair Mastic material is CrafcO Mastic One or Deery Level & Go Repair Mastic or approved equal.  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. The Repair Mastic is formulated to be used in unconfined and feathered edge repairs, such as filling and leveling of wide transverse depressed cracks and joints.   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. The Repair Mastic, when properly applied, forms a well bonded, flexible, waterproof, durable, traffic resistant repair.   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. The Repair Mastic will be able to withstand vehicular traffic when it has cooled to solidify and not strip, kick up or ravel out afterwards.  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. The Repair Mastic must be ready to use when removed from its packaging, mixed and heated in an appropriate melter until application temperature is reached, then poured into the prepared repair area and then leveled. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. The Repair Mastic material shall consist of polymer modified asphalt and aggregate within prescribed quantities to make a mixture which will provide satisfactory pavement repair characteristics.                      |

Other or Comment \_\_\_\_\_

**2. Polymer Modified Binder:**

The bituminous material shall be a blend of asphalt cement and other additives, which upon blending shall conform to the following requirements:

**YES    NO    OTHER**

- |                                     |                          |                          |  |                           |                           |
|-------------------------------------|--------------------------|--------------------------|--|---------------------------|---------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Cone Penetration @ 77° F (25° C), 150 g, 5 sec  | ASTM D 5329               | 100 dmm<br>Maximum        |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Cone Penetration @ 122° (50° C), 150 g, 5 sec   | ASTM D 5329               | 150 dmm<br>Maximum        |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. Softening Point (Ring and Ball)   | ASTM D 36                 | 200° F (93° C)<br>Minimum |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. Flexibility @ 32° F, (1" Mandrel, 180° bend, 10 sec for CrafcO OR .25" mandrel, 90° bend, 10 sec for Deery) OR Test ASTM D 3111 for approved equals | ASTM D 3111<br>Modified * | Bend without<br>Cracking  |

\* Crafcro and Deery have identified with their products and modified this test method.

Comments: I have some concerns with Item D. You are asking for a modification of a standard test for individual manufacturers. If a manufacturer bids an approved equal as in item 1 A, can they use a modification of the standard test. Also on item 1 A what will the process be to determine an approved equal.

### 3. Finished Blended Product:

YES	NO	OTHER			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Low Temperature Flexibility	ASTM D 3111	Pass @ 32° F (0° C)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water Absorption after 24 hrs @ 122° F	ASTM D517	1% Maximum Absorption
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum Application Temperature		375° F (190° C)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maximum Safe Heating Temperature		410° F (210° C)

Other or Comments \_\_\_\_\_

### 4. Aggregate:

The aggregate shall meet the following requirements:

YES	NO	OTHER			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Resistant to Abrasion and Impact (Grading C)	ASTM C 131	20% degradation Maximum

The NDOR reserves the right to acquire a random sample of the aggregate for testing to determine specification compliance.

Other or Comment \_\_\_\_\_





420 N. Roosevelt Ave. • Chandler AZ 85226  
1-800-828-8242 • (602) 276-0406 • FAX (480) 961-0513  
www.crafco.com

## PRODUCT DATA SHEET

### MASTIC ONE

PART NO. 33339

JULY 2005

#### READ BEFORE USING THIS PRODUCT

**GENERAL** Crafco Mastic One is a hot applied, single component, pourable, aggregate filled, polymer modified asphalt pavement repair mastic. Mastic One is used for filling and repairing many distresses in both asphalt concrete and Portland cement concrete that are larger than those typically repaired by crack or joint sealing, but smaller than repairs requiring remove and replace patching procedures. Typical uses include filling and leveling of wide transverse or longitudinal cracks and joints, filling potholes and utility cuts, localized skin patch repairs and leveling bridge approaches or faulted areas. When properly applied, Mastic One forms a well bonded, flexible, durable, traffic resistant repair. To use, Mastic One is removed from the box, mixed and heated in an appropriate melter until application temperature is reached, then poured into the prepared repair area and then leveled. Mastic One is formulated to provide neat feathered edge installation. Mastic One is then ready for traffic when it has cooled to solidify.

#### PROPERTIES

Properties and characteristics of the polymer modified binder, aggregate and appropriately blended and heated Mastic One are as follows:

	<u>Property</u>	<u>Requirement</u>
Polymer Modified Binder	Cone Penetration, 77°F (25°C) (ASTM D5329)	60 max
	Cone Penetration, 122°F (50°C) (ASTM D5329)	120 max
	Softening Point (ASTM D36)	200°F (93°C) min
	Flexibility (1", 180°, 10 sec) (ASTM D3111 modified)	Pass at 32°F (0°C)
Aggregate	Abrasion Resistance (ASTM C131)	20% max
Blended Product	Flexibility, 32°F (0°C) (PTM 3)	Pass
	Adhesion, 77°F (25°C) (PTM 4)	25 PSI (172 KPA) min
	Specific Gravity	1.7 - 2.0
	Minimum Application Temperature	375°F (190°C) min
	Maximum Application Temperature	410°F (210°C) min

Note: Due to unique characteristics of Mastic One, modified test procedures are required to indicate properties. Test methods PTM 3, 4 are available from Crafco, Inc.

#### APPLICATION

The unit weight of Crafco Mastic One is 15.5 lbs/gal (1.86 kg/l) at 60°F (15.5°C). Prior to use, the user must read and follow application instructions for Mastic One to verify proper product selection, heating methods, pavement preparation procedures, application geometry, usage precautions and safety procedures. These instructions are provided with each pallet of Mastic One.

#### PACKAGING

The Mastic One polymer modified binder and aggregate are pre-measured and packaged in meltable plastic bags and placed in a cardboard box. Each box contains 40 ± 1 lbs (18.1 ± 0.45 kg) of Mastic One. The aggregate and binder are not premixed. The boxes of product are palletized into shipping units which contain 72 boxes stacked in 6 layers of 12 boxes per layer. Pallets of product are weighed and product is sold by the net weight of product. Product boxes are manufactured from double wall kraft board producing a minimum bursting test certification of 350 psi (241 N/cm<sup>2</sup>) and using water resistant adhesives. Boxes use tape closure and do not contain any staples. Boxes are labeled with the product name, part number, lot number and application temperatures. Palletized units are protected from the weather using a three mil thick plastic bag, a weather and moisture resistant cap sheet and a minimum of two layers of six month u.v. protected stretch wrap. Pallets are labeled with the product part number, lot number and net weight. Application Instructions are provided with each pallet in a weather resistant enclosure.

#### WARRANTY

CRAFCO, Inc. warrants that Crafco products meet applicable ASTM, AASHTO, Federal or State specifications at time of shipment. Techniques used for the preparation of the cracks and joints prior to sealing or filling are beyond our control as are the use and application of the products; therefore, Crafco shall not be responsible for improperly applied or misused products. Remedies against Crafco, Inc., as agreed to by Crafco, are limited to replacing nonconforming product or refund (full or partial) of purchase price from Crafco, Inc. All claims for breach of this warranty must be made within three (3) months of the date of use or twelve (12) months from the date of delivery by Crafco, Inc. whichever is earlier. There shall be no other warranties expressed or implied. For optimum performance, follow Crafco recommendations for product installation.



420 N. Roosevelt Ave. • Chandler AZ 85226  
1-800-528-8242 • (602) 276-0406 • FAX (480) 961-0513  
www.crafco.com

## APPLICATION INSTRUCTIONS

### MASTIC ONE

PART NO. 33339

AUGUST 2005

#### READ BEFORE USING THIS PRODUCT

**GENERAL:** These application instructions pertain to Crafco Mastic One, which is a hot applied, single component, pourable, aggregate filled, polymer modified asphalt pavement repair mastic. Mastic One is used for filling and repairing many distresses in both asphalt concrete and Portland cement concrete that are larger than those typically repaired by crack or joint sealing, but smaller than repairs requiring remove and replace patching procedures. Typical uses include filling and leveling of wide transverse or longitudinal cracks and joints, filling potholes and utility cuts, localized skin patch repairs and leveling bridge approaches or faulted areas. When properly applied, Mastic One forms a well bonded, flexible, durable, traffic resistant repair. To use, Mastic One is removed from the box, mixed and heated in an appropriate melter until application temperature is reached, then poured into the prepared repair area and then leveled. Mastic One is formulated to provide neat feathered edge installation. Mastic One is then ready for traffic when it has cooled to solidify.

**MELTING, HEATING AND AGITATING:** Mastic One is supplied in solid form in a meltable plastic bag contained in a cardboard box. The aggregate and polymer modified binder are pre-measured and packaged in the plastic bag, but are not pre-mixed. To use, the bag of Mastic One is removed from the box and then placed in a Crafco Patcher II or other approved melter to heat and mix the product. The melter must be equipped with an effective horizontal agitator system that is able to maintain a uniformly mixed product, have a thermostatically controlled hot oil jacketed heating system, and have an effective means of dispensing product. During heating, the heat transfer oil should be heated to between 450 and 525°F (323 - 274°C). Agitation should begin as soon as the Mastic One has melted sufficiently for the agitator shaft to turn. Additional Mastic One can then be added to the melter. Heating and agitation should continue until all added material has been thoroughly mixed and the product application temperature range of 375 - 410°F (190 - 210°C) has been reached. At application temperature, Mastic One is a thick, grainy appearing mastic. Additional Mastic One can be added as product is used and quantity in the melter decreases. When adding additional Mastic One, the agitator must be stopped. After the additional Mastic One is added, agitation is to be immediately resumed and application should not resume until required temperatures are reached and all added material has melted, becoming well mixed into the product with no uncoated aggregate present. During application and while product is hot, agitation should be continuous, except for when additional product is being added to guard against aggregate settlement. If aggregate settles in the melter, it may be difficult to agitate product. For best performance, it is recommended that the melter be emptied, or only small amounts of Mastic One be left in the melter at the end of each work day.

#### RECOMMENDED APPLICATION PROCEDURES:

1. Only apply Mastic One to clean, sound, dry surfaces. Avoid highly distressed areas in need of reconstruction. All areas must be clean from dust and debris. All areas to be repaired shall be blown with dry, oil free compressed air. If compressed air does not sufficiently prepare the

surface, additional cleaning procedures such as sweeping with a stiff or wire bristle broom, sandblasting or routing are recommended. (If sealant won't adhere, neither will Mastic One). PCCP shall be abrasive cleaned to achieve maximum adhesion performance.

2. The minimum pavement temperature for installation of Mastic One is 40°F (4°C). If the pavement temperature is less than 40°F (4°C), it can be warmed by heating with a heat lance. Asphalt concrete pavement should be heated so a slight bleeding effect occurs. This bleeding brings some of the asphalt binder from the pavement to the surface, which will enhance the adhesive bond between the Mastic One and road surface. However, caution should be taken to prevent overheating/oxidizing the asphalt brought to the surface as this could be detrimental to adhesion performance. Heating the pavement will of course also remove moisture assuring a dry surface. Mastic One should be applied within 10 minutes of warming the pavement area.
3. For improved adhesion, Crafco Asphalt Primer, part number 33140, can be applied to the cleaned surface. Primer should be brush, roll or spray applied at approximately 200 to 400 ft<sup>2</sup> per gallon (0.025 to 0.05 gsy), depending on pavement texture and porosity. Application should result in a completely wetted surface without puddling. Primer must completely cure prior to Mastic One application. Curing time required depends on weather conditions, including temperature, cloud cover, wind and humidity. At 70°F (21°C) on a sunny day curing will generally take from 30 minutes to 2 hours. At temperatures below 55°F (13°C) primer should be allowed to cure for at least 16 hours or overnight. Minimum temperature for primer applications is 45°F (7°C). Primer is cured sufficiently when it reaches a tacky condition when touched with no transfer to one's finger. All areas of the primed surface must reach this state of curing prior to membrane application. Mastic One should be applied the same day as when the primer becomes fully cured.
4. Mastic One that has been mixed and heated to the application temperature range is then dispensed from the melter and immediately applied to the prepared pavement area.
5. Immediately following application to the pavement surface, the Mastic One shall be leveled and smoothed to the desired level using a straight metal or rubber squeegee. If necessary for deep installations, to limit settling and to produce a level finished surface, Mastic One can be applied in layers with a cooling and solidifying time period between applications. Minimum installed thickness is 3/8" (1 cm). The aggregate portion of Mastic One is selected to allow feathered edge type installations when required. The finished Mastic One installation should be applied smooth and level with the pavement surface.
6. When installing over a distressed pavement surface, Mastic One should be applied at least 6" beyond the distressed area onto sound pavement surfaces.

7. Mastic One cools quickly after installation and is ready for traffic when it has solidified sufficiently to support loads. Apply Crafcro Detack to reduce surface tack and allow quicker opening of the area to traffic.

**APPLICATION CONFIGURATIONS FOR MASTIC ONE:**

The general use of Mastic One is to repair pavement deficiencies which are larger than those that can be appropriately filled with pavement sealants, but smaller than those where conventional remove and replace patching procedures are used. Suggested uses include (but are not limited to): 1) pavement cracks or joints over 2 in. (5 cm) wide, 2) small potholes up to 4 in. (10 cm) deep and 12 in. (25 cm) in diameter, 3) pavement depressions up to 2 in. (5 cm) deep and 6 in. (60 cm) wide, 4) skin patching alligator cracked and other distressed areas (avoid deteriorated areas in need of reconstruction), 5) leveling recessed transverse thermal cracks, and 6) capping settled utility cuts. Mastic One shall not be used for surface skin patch repairs near intersections.

When applied, the modified asphalt binder is self-adhesive and develops a strong bond to the desired work area. Shrinkage of approximately 5% will occur as Mastic One cools from application temperature to ambient conditions. No compaction is required. After application, sufficient time must be given for the product to cool before opening the area to vehicular or pedestrian traffic. Cooling time will vary depending on the size of the application and ambient temperature. Generally allow approximately 30 to 60 minutes of cooling for each 1 in. (2.5cm) of material depth.

For deep applications Mastic One should be applied in two separate lifts. The first application should fill the work area to within 1/2 in. (12 mm) - 1 in. (25 mm) of the desired height. After the first lift has cooled, a second lift should be applied level with the surrounding pavement. This technique will reduce the amount of material shrinkage when cooled.

Roofing felt paper can be used along the work area boundaries to create a neat, well defined edge. The paper should be removed immediately after application before material cools.

**APPLICATION LIFE:** Application life at application temperatures is approximately 12 to 15 hours. Application life may be extended by adding fresh material as quantity in the applicator decreases. Mastic One must be agitated while being applied. The material may be reheated to application temperature once, after the initial heat up. Additional reheating of the material may result in degradation of properties. When the application life has been exceeded, Mastic One will begin to thicken, become "stringy" and may then gel. If this should occur, the material should immediately be removed from the applicator and discarded.

**PRECAUTIONS:** Mastic One will soften, become sticky, and track if exposed to fuel or oil spillage, therefore, it should not be used in areas subject to fuel or oils.

**STORAGE:** Pallets of packaged product are protected with a weather resistant covering. During storage, the protective wrap must be kept on the pallets to prevent boxes from getting wet. If boxes are subjected to moisture, they may lose strength and crush resulting in pallet leaning. If rips in the pallet covering occur during handling, they should be repaired to help maintain packaging integrity. Pallets should be stored on a level surface which is dry and has good drainage. Pallets should not be stacked because crushing of bottom layers may occur. Mastic One material properties are not affected by packaging deterioration.

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**SAFETY PRECAUTIONS:** Since Mastic One is heated to elevated temperatures, it is essential that operations be conducted in manners which assure safety of personnel. All associated with use of the material need to be aware of the hazards of using hot applied materials and safety precautions. Before use, the crew should read and understand product use, safety information and the product MSDS. This sheet which is supplied with each shipment, describes the characteristics of the product as well as any potential health hazards and precautions for safe handling and use. User should check D.O.T. requirements for transportation of product at elevated temperatures (above 212°F (100°C)).

**HAZARDS ASSOCIATED WITH HOT APPLIED MATERIALS:**

Skin contact with hot applied materials causes burns. Over exposure to fumes may cause respiratory tract irritation, nausea, or headaches. Appropriate precautions need to be taken to prevent contact with the hot material and to avoid inhalation of fumes for everyone in the vicinity of the work area operation. Safety precautions should include: 1. Protective clothing to prevent skin contact with hot material. 2. Care when adding product to melters to reduce splashing. 3. Careful operation and control of tools which are used to apply product. 4. Traffic and pedestrian control measures which meet or exceed local requirements to prevent access to work areas while product is still in a molten state. 5. Avoidance of material fumes. 6. Proper application configurations with a minimum amount of excesses of material. 7. Appropriate clean up of excessive applications or product spills.

**ADDITIONAL INFORMATION:** Additional information regarding these products is available by contacting your distributor or Crafcro, Inc. This information includes 1) Product Data Sheets, 2) Material Safety Data Sheets, 3) Safety Manual.